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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/733,665	12/08/2000	Christian Summerer	99 P 7719 US 02	6093

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EXAMINER
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PHAN, THAI Q

ART UNIT	PAPER NUMBER
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2128

DATE MAILED: 02/02/2004

19

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
09/733,665

Applicant(s)  
Christian Summerer

Examiner  
Thai Phan

Art Unit  
2128



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Nov. 10, 2003
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 4-17 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Apr. 02, 2001 is/are a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 18 6) ☐ Other:

### **DETAILED ACTION**

This Office Action is in response to applicant's amendment filed on Nov. 10, 2003.

Claims 5-17 are newly added. Claims 4-17 are pending now.

#### ***Drawings***

1. This application has been filed with formal drawings which are acceptable for examination purposes only.

#### ***Information Disclosure Statement***

2. The information disclosure statement filed on Dec. 23, 2003 has been considered and placed in the record.

#### ***Claim Rejections - 35 USC § 112***

3. Due to applicant's amendment, the 35 USC 112, Second Paragraph rejection has been withdrawn.

#### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made

to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishi, Kenji, US patent no. 6,411,386 B1.

As per claim 4, Kenji discloses a system for detecting an alignment mark on a semiconductor body with feature limitations substantially similar to the claimed invention (Abstract, Fig. 1, and Summary of the Invention). According to Kenji, the aligning apparatus measures positions of wafer marks, such alignment mark comprising a pair of sets of parallel lines disposed on the semiconductor wafer (Fig. 2), the parallel lines in one of the sets being orthogonal to the parallel lines in the other one of the set, wherein the parallel line sets are overlaying relationship. The apparatus includes

an optical system (col. 6, lines 28-50) for illuminating and scanning an alignment illumination comprising a pair of orthogonal lines of impinging light over the surface of the alignment mark, impinging lines are orthogonal to and laterally displaced from the other one of such pair of impinging light lines due to light reflected from the alignment lines in wafer mark on the semiconductor body (Figs. 1, 6, col. 10, lines 22-42, col. 11, lines 4-50, col. 17, lines 13-28, for example),

detector or sensor (Fig. 1, col. 7, lines 55-65, for example) for detecting laterally displaced beams of the reflected light. Such sensor has a CCD-type two-dimensional image device (col. 7, lines 55-65) for detecting reflected lights from orthogonal directions (Figs. 2, 6, col. 10, lines 22-42, col. 11, lines 4-50, col. 17, lines 13-28, for example). Kenji does not

expressly disclose a pair of detectors spaced laterally to detect reflected lights as claimed. Such feature is however known in the art.

Practitioner in the art at the time of the invention was made would have found Kenji detector having CCD-type two dimensional (array) image sensor could imply the claimed limitation of pair of detectors spaced laterally because the CCD-type two dimensional image sensor has an array of sensing elements, or pair of sensors as claimed, arranged in two dimension usually lateral spacing, for detecting optical signals reflected in two dimensional and the CCD array would provide a high resolution 2-D image.

As per claims 5-17, Kenji teaches the claimed limitations to detect alignment mark on the semiconductor body.

### ***Double Patenting***

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321© may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground

provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claim 4 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,537,836 B2 . Although the conflicting claims are not identical, they are not patentably distinct from each other because they are obvious modification of each other. The difference is the claimed feature of “overlying” is cited in claim preamble in the present application instead in the claim embodiment of issued patent above.

#### ***Response to Arguments***

8. Applicant's arguments with respect to claims 4-17 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Thai Phan whose telephone number is (703) 305-3812.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703)305-3900.

**Any response to this action should be mailed to:**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

**or faxed to:**

(703) 872-9306, (for formal communications intended for entry)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal  
Drive, Arlington, VA., Sixth Floor (Receptionist).

January 26, 2004

*Thuy Pham*  
*Patent Examiner*  
*Thuy Pham*  
*AU: 2128*